WORKING PAPER

**STRICTER** OR **MILDER**?

THE EFFECT OF THE US 59TH PRESIDENT ELECTION ON THE PENALTY TOWARDS FIRM MISCONDUCTS

2021

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## Abstract

If firms did wrongdoings, what would be the stock market reactions towards them especially during the 59th US president election? With my limited knowledge, the effects of misconducts on stock prices and political events on stock prices are still controversial. Hence, the study aims to find how the double events (i.e. first is firm misconducts, second is the 59th US president election events) affect American firms’ stock prices under the case of Decay Theory of Forgetting in psychology with two questions. First, whether the political events affect the punishment. Second, was the punishment stronger or milder during the political events. I use data of 36 firms on both OTC and NYSE/Nasdaq stock markets collected using Google news and CRSP of the WRDS database and Yahoo Finance from 2018 to 2021 to find evidence. After finding cumulative abnormal return, there are only 31 firms experienced punishment. I used Event Study Method and SAS software to answer the questions. The study finds that among firms experienced punishment, both on the first election result 7th November 2020 and the 6th January 2021 when Joe Biden was affirmed the result, there were positive abnormal returns but the effects on the punishment were statistically insignificant.

## Introduction

The study has two research questions. First, did the 59th US president election affect the stock market’s penalty on corporate wrongdoings? Second, was the penalty stricter or milder during the election?

**Context**

According to The Efficient Market Hypothesis theory, ‘If markets are efficient, stock prices will rapidly and accurately reflect all available information’. However, many studies show that stock markets are generally not efficient, and so is the US stock market. Information asymmetry is the reason for why stock markets have anomalies.

Stock prices are influenced by some kinds of news, including macroeconomics news, political and world news besides the firms’ news (Cutler et al, 1988). When firms conduct bad behaviours, there would be a penalty to their behaviours as a correction towards their wrongdoings. Investors, who are sensible with news and tend to be more sensible towards bad news than good news, would sell these stocks as a reaction to firms’ bad corporate governance news. Existing studies show different ideas about the punishment. On one hand, generally the effect of corporate misconducts on stock prices is insignificant but by classifying crime types, it is significant for some certain types of crime according to Davidson, Worrel, and Lee (1994); Murphy, Shrieves, Tibbs (2009) and Rao (1997). On the other hand, Barnett (2011) says that sometimes stakeholders forget to punish the bad behaviors of firms.

Also, political news has some impacts on the moves of corporate stock prices. While Wagner, Zechkhauser and Ziegler (2017) find that there were positive stock movements during the American president election events, Altin (2015) also indicates that there were market anomalies during election events across many countries. Especially the 59th US president election in 2020 was unique compared to previous US president elections, for example, the delay of final results due to voting by post in the context of the COVID-19 pandemic, and the chaotic protest of Donald Trump’s supporters at Capitol Hill against Joe Biden’s victory. Hence, news regarding this 59th US president election would have difference effects on the US stock market.

Although there are studies with contrasting results about each event (misconduct and president election) separately, within my limited knowledge, there is no studies about how the two events happen at close times affect the stock prices. With this identified research gap, I would like to conduct this project to find the double effect of these two events on the stock prices of firms with misconducts.

To be specific, I want to measure whether for the firms being punished for their wrongdoings, will the punishment on them would be affected by the current political news. In other words, whether investors will focus only on the political news of the current election and forget the past wrongdoing behaviours of the firms which they bought their stocks. It is essential to know the effect especially in the newest and unique US president election.

**Methodology and data**

The data is manually collected from Google news about SEC charges on firm misconducts for a firm list with misconducts. After that, I collected data on CRSP (for listed firms) and Yahoo Finance (for firms trading on OTC). The final dataset has 36 American-based firms trading on OTC and NYSE/NASDAQ American stock market.

In terms of methodology, I applied Event Study methodology using Single Index Model regression, and used SAS and Excel to find market anomalies around the two major events. After finding abnormal returns around the firm misconducts event, there are 31 firms left to be considered the effect of the 59th American president election.

The result shows that among firms who are suffering strong punishment from the US stock market, there were positive abnormal returns around the US president election key dates, but still insignificant statistically. Hence, the effect of the 59th US president election on the punishment is not significant.

## Theoretical framework and Economic intuition

The study is based on the two major theories: Efficient Market Hypothesis and Decaying theory of forgetting.

According to The Efficient Market Hypothesis (EMH) theory of Fama (1970), ‘if markets are efficient, stock prices will rapidly and accurately reflect all available information’. In other words, within a given information set, there would be no change in price if the information is revealed to the public (Markiel, 1989). Capital market efficiency needs some conditions. First, no transactions costs in trading securities. Second, all available information available to all participants in markets without any costs. Third, agreement of all participants on the current information’s implications on the current price as well as the distributions of future prices of each security. Fama states that these conditions are sufficient but not necessary for market efficiency. When EMH is questioned about its validity, from existing studies market anomalies are found.

What makes stock price move? Some types of news can move stock prices in different ways (Cutler et al, 1988). In the study, macroeconomics news, political and world news as well as corporate news can change stock prices. While corporate news tends to play a key role in prices change, macroeconomics news can explain up to a third of the change while political and world news just can explain a small part of the change.

One type of market anomalies occurs when firms are doing bad things. Davidson et al (1988, 1994) shows that firms are considered as a network of contracts between the companies and many stakeholders. Also, there are agency problem where interest conflicts between firms’ managers and outside stakeholders occur as well as information asymmetry problem. If the prices are falling compared to the market, the firms’ managers may not follow the contracts, thus the managers may be disciplined by the stake holders. When stock market reaction occurs, the disciplining of managers may take place. Another type of market anomalies can be found during election periods like that of Altin (2015).

The study is also based on psychology Decay theory proposed by Edward Thorndike (1914). The theory is to explain memories fading due to time. The longer the time, the more memory decays, the more information is forgotten.

## Critical Literature Review, Motivation and Hypotheses

Regarding misconduct behaviors, there are contrasting viewpoints about how stock markets react to the corporate wrongdoings. Some say they penalize the firms, some give evidences that there is no or little effect on the firms’ stock prices. Davidson, Worrel, and Lee (1994) conducted 535 corporate crime announcements of listed firms on US stock market and found out that overall stock market reactions are insignificant. However, if announcements are divided by types of crimes, the reactions are significant to announcements of bribery, tax evasion and government contracts violations. Similarly, Murphy, Shrieves, Tibbs (2009) also conclude that by classifying the types of crimes, there are significant variations in wealth of firms in US stock market around the announcements, especially if the announcements are about fraud. Rao (1997) also agrees that bribery, scandal, white collar crime and illegal payment announcements have an effect on actual firms’ stock performance in US stock market: the actual stock performance was lower than expected market adjusted returns. Contrastingly, Barnett (2011) proves that sometimes stakeholders punish firms and sometimes they do not. In other words, the stakeholders’ penalty of firm misconduct is inconsistent due to their inconsistent attentiveness to firm misconduct. Hence, “misconduct often will not result in punishment”.

Regards to election news, there are several ideas and cases about the effect of political events on stock price performance. In the study of Wagner, Zechkhauser and Ziegler (2017), there are significant relative stock movements due to the 45th US president election event with changes in policies on tax and foreign trade matters. The expectations about the changes affect firm values in the US stock market. In line with that, Altin (2015) shows that price anomaly happened during the election periods across more than 11 countries from 1832 to 2013. And the majority of the elections indicates that the effect of election on stock price is positive and stock investments are liquidized very fast. Mnasri and Essaddam (2020) highlight that stock price volatility and the probability of winning of the opposing party candidates in USA is positively correlated and statistically significant. Hence, in the case of 59th US president election, when Biden finally won Trump who was the current president before 7/11, I forecast the stock market reactions were positive and the punishment towards corporate wrongdoings would be milder on the president election key dates.

My study about the effect of current political events on the stock market’s penalty of firm misconducts is different with existing studies because of the following reasons:

First, due to my limited knowledge, there has been no research about the double effect of the two events (i.e. political events and misconduct events) on stock price performance. It is firstly the effect of the corporate wrongdoing news on the firms’ stock price (the penalty) and then the political events on the penalty which reflects via the firms’ stock price volatility.

Second, the US 59th president election is unique compared to previous US election as the stakeholders’ uncertainties increase during the pandemic COVID-19. Also, the election was organized differently as people had chances to vote more by post rather than in person and this postal process takes longer time to count. On 6/1/2021, there was a chaotic protest of Trump against Biden’s winning, which makes the whole world surprise as nothing similar happened in the past.

In order to understand the effect of the 59th president election on the penalty of US stock market towards firm misconducts, besides the above major issues, I also combine with the Decay Theory of forgetting in psychology. My hypothesis is:

H0. The penalty towards firm misconduct is the same during as before the election.

H1. The penalty towards firm misconduct is milder during the election.

I expect, during the US 59th president election, stakeholders would focus on the current issue or the president event and forget the wrongdoings of the firms. My expectation is backed up by the study of Mnasri and Essaddam (2020) as there is a certain likelihood to win of Biden-the opposing party of Trump-the current president before the election when Trump’s president time showed many weaknesses and raised many arguments. Also, based on the Decay Theory of forgetting, as time passes by, memories tend to decay and so the firm misconduct events tend to be not as important as they were firstly announced before the election. There is another possible explanation for my reason which is backed by the study of Barnett (2011) when he shows that by analyzing cognitive process, investors’ attentiveness to firm misconduct is inconsistent and different by time.

## Research Design

**Dataset** (See Table 3 at Appendix)

**Sources of data:** First, I use Google news to find a list of firms which had announcement of SEC on misconducts. Then, I collect the firms’ stock prices and NASDAQ index prices from CRSP and Yahoo Finance database.

**Data size:** Initially 39 US-firms but 3 firms do not have enough information (stock code, stock prices available in 2018) hence the final dataset has 36 firms listed and on OTC and American stock market (NASDAQ and NYSE).

**Period tested:** The period for the data collected is from 13/8/2018 (one year after the election first date) to 7/1/2021 (one day after the date Biden’s victory was affirmed).

The misconduct events vary from September 2019 to October 2020.

The president period is from August 2020 to January 2021. I divide the president election event into three stages:

* Pre-election:

11/8/2020: Biden was finalised to compete with Trump in president campaigns

29/9/2020: first debate between Biden and Trump

15/10/2020: second debate

22/10/2020: third debate

* Official-election

3/11/2020: official election day

7/11: Biden won: time 0 (election event 1) but the closest trading date was **9/11**

* Post-election and Beginning of a new president term

6/1/2021: Biden delivered remarks at Capital Hill and Trump’s protest: time 0 (election event 2)

**Econometric analysis**

* Normality: I used Histogram as well as statistics tests namely Kolmogorov-Smirnov, Cramer-von Mises, Anderson-Darling, Chi-Square to test the normality of the residuals of Single Index Model. The results show that the residuals do not follow normal distribution. (See Table 6, Picture 1 at Appendix)
* Homoskedasticity: I used White test to test the homoskedasticity of the residuals of Single Index Model. White test shows that the residuals are homoskedastic. (See Table 8 at Appendix)
* Collinearity: The Single Index Model has only one independent variable so it is not necessary to test collinearity. (See Table 7 at Appendix)
* Outliers: I plotted to see the outliers. The abnormal return which is also residual of the Single Index Model has around 5 outliers. (See Picture 2 at Appendix)

As I aim to see the abnormal returns of stocks, I respect the original data and do not modify the data.

* **Empirical model, Variables and Expectations** (See Table 1 at Appendix)

I used Event Study method to see the effect of the current US political event on the penalty of misconduct firms.

First, I used Single Index Model to do regression between real stock return (Ri) and Nasdaq index return (Rm) from 13 August 2018 to 07 January 2021. The regression model is: Ri = α + β Rm + r. Where **return rate (Ri, Rm) =**

Second, from the regression model, I found **residual (r)= Ri – (α + β Rm)**. The residual here is the abnormal return (abri) of stock prices at time 0.

Third, I find event windows and cumulative abnormal returns of stock prices. Each stock has different event dates for misconduct event but same event dates for election event. In general, the event windows for misconduct event is **(0,1), (0,7) and (0,14)** and the event windows for election event 1 is **(0,1), (0,4)** and for election event 2 is **(0,1)**. **Cumulative abnormal return CAR(0,y) = abri + abri(1) + … + abri(y)**

I expect abri and CAR have values different than 0, positive at event dates and event windows, and Ri and abri are correlated strongly.

## Empirical Results

**Variable Description** (See Table 4 at Appendix)

For all 36 firms, Ri has the most volatile values compared to Rm and abri. The average return rate (mean) is at 2.7%/trading day but can vary up to 136% to the mean. It has very extreme values with the minimum -100% to the maximum 10900%/a trading day.

Therefore, abri is also volatile. The mean is very small, nearly 0, but the standard deviation is 135%. The range of its value is even wider than that of Ri: the minimum can be -261% and the maximum can be up to 10827%.

Nasdaq index return Rm has the most stable values, with the average return rate is 0.1% but varies only 1.7% around the mean. Minimum and maximum values also are much lower: -12% and 15% respectively.

Among 36 firms, Zoom Technologies, Inc (ZTNO) has the most changing Ri and abri. It is also the firm that disappeared longest in the stock market during the punishment. Another firm that disappeared during the punishment is Aethlon Medical, Inc (AEMD) but its return rate varies not very significantly (STD 59%). (Run SAS code)

**Table 2. Exceptions**

|  |  |  |  |
| --- | --- | --- | --- |
| Firm | Misconduct date | Last trading date before misconduct date | Latest trading date after misconduct date |
| ZTNO | 26/03/2020 | 25/03/2020 | 14/04/2020 |
| AEMD | 10/02/2020 | 07/02/2020 | 24/02/2020 |

**Correlation analysis** (See Table 5 at Appendix)

For all 36 stocks, Ri and Rm are not correlated much, only at 0.5%. But for individual stock, Goldman Sachs (GS), among the most popular and biggest firm, has Ri correlated with Rm (Nasdaq index return) at 71%. Similarly, JP Morgan Chase and Co (JPM) has the correlation rate at around 65%.

Ri and abri are correlated very strongly, more than 99% in general, like the expectation. Surprisingly, Goldman Sachs (GS) has the correlation at only 69%, lowest among other stocks. (Run SAS code)

**Empirical Results**

To find firms which experienced or are experiencing the punishment from the stock market, I conducted abnormal returns and cumulative abnormal returns of their prices on misconduct event date and windows: 0, (0,1), (0,7), (0,14). Each firm has each misconduct event date.

For CAR(0,1), CAR(0,7), CAR(0,14), there are 5 firms which had no negative CAR on all three windows. Hence, there are only 31 firms left experienced punishment from the stock market with negative CAR.

To find the effect of the president election event on the punishment, first I conducted abnormal returns and cumulative abnormal returns on the two election events. For election event 1 (09/11/2020), I have event windows: 0, (0,1), (0,4). (See Table 11, 12, 13 at Appendix)

For all event windows, H1 is rejected, or the effects on punishment are insignificant statistically. At the event date, the abri has the mean at around 1% and some had positive while some had negative abnormal returns. In general, the reaction of the stock market towards the president election result was positive. It could indicate that some investors may ignore the misconduct events and focused on the president result. Although the t-value of the event date is highest among the other variables CAR(0,1) and CAR(0,4), it is still insignificant statistically.

In general, on the event window (0,1), CAR (0,1) was positive although still smaller than abri on the event date and insignificant statistically, while CAR(0,4) was negative and insignificant statistically in general. It can be interpreted that the closer the date to the president result date is, the more positive reaction the stock market is, according to the mean and t-values.

**abri>CAR(0,1)>CAR(0,4)**

Hence, for the first election event, I can explain that when Joe Biden was announced to be the new president of the US, the stock market tended to be more relaxed and award that winning by buying more US stocks although the firms conducted bad behaviour recently. In other words, the penalty was milder during this winning incident but still not enough statistically significant. The results are like what I expected before, about the milder penalty during the election event but still not significant enough in statistics.

For election event 2 (06/01/2021), when Joe Biden was officially affirmed his winning at Capitol Hill, Donald Trump called his supporters to protest and the Trump supporters explicitly protested there with armed forces and made the place become very chaotic. This incident has never happened in the US president election history before. The protest started at 6am on 06/01/2021 and ended at 3.30am on 07/01/2021. (See Table 16, 17 at Appendix)

The result shows that H1 is rejected for all event windows. At the event date, abri or the reaction was negative but insignificant statistically. For the date after, when the protest was ended in the early morning, CAR(0,1) turned to be positive but insignificant statistically. It can be explained as the stock market was happier and treated the stocks with misconduct more relaxing. For the reaction on the event date via abri, it is very different with my expectation because it was the strange incident when the protest against the new president was so strong in the USA, like black swan event. However, for the reaction towards the event window (0,1), my expectation was correct as the stakeholders treated misconduct firms’ stocks less strictly.

In general, although the results were not significant enough in statistics but from the means, it can be seen that the reactions of the stock market towards the president election were positive, except the 06/01/2021 of Trump’s protest. Hence, the market tended to forget the wrongdoings of misconduct firms and treated the stocks milder during the election.

## Robustness test and sensitivity analysis

When I classified the crime into different types, namely 5 types: bribery, accounting fraud, illegal payment, misleading, and securities fraud, the reactions towards each group during the two election events were different. Illegal payment has not enough values to run regression. Accounting fraud and bribery were significant statistically for all variables at both events. While misleading and securities fraud were insignificant for all variables at both events.

In short, it can be summarized that accounting fraud and bribery incidents made people forget or ignore them easily than other types of crimes when the president election was occurring. Hence, if an American firm committed accounting fraud or bribery, during the 59th president election, stakeholders tended to punish them more mildly. While those committed misleading and securities fraud, the effect of political events on the punishment was insignificant statistically. (See Table 18,19 at Appendix)

Conclusions and Recommendations

The study is to find the effect of the current US president election event on the punishment of the American stock market towards American-based firms who did bad things and contribute to the research gap of the double event on stock prices. The results show that among those experienced or experiencing the punishment, the effect of the president election event was not significant statistically on the punishment. However, in general, the reactions of the American stock market were positive and less strictly towards the firms who did bad things. It can be explained by the Decay Theory of forgetting, when people ignore or forget about past behaviours because of time when new things come and attract more attentions. By types of crime, accounting fraud and bribery tended to get milder punishment during the president election event.

There are several limitations of the study. First, the data sample is too small, 39 firms initially because I want to measure recent misconduct incidents from September 2019 to October 2020 and I used NASDAQ index for market price which is not suitable for stocks on OTC. Second, the data is respected and was not modified after BLUE tests, hence the outliers and non-normality can affect the results. Third, it is difficult to categorize corporate crimes into distinct types.

From the limitations, some recommendations are suggested to improve the study. First, future study can enhance the validity of the study by increasing the sample size across time and countries especially for each types of crimes. Second, graphs can be included to demonstrate the market anomalies around the two major events (misconducts and president election). Third, more existing studies can be discussed to increase the creditworthiness of the study.

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